

| Model | Tube ID Range |              |               | Tube OD Range |               |               |
|-------|---------------|--------------|---------------|---------------|---------------|---------------|
|       | Inches        | Seal         | mm            | Inches        | Collet        | mm            |
| 141   | 0.306 - 0.325 | <b>0.315</b> | 7.77 - 8.26   | 0.320 - 0.339 | <b>0.330</b>  | 8.13 - 8.61   |
|       | 0.326 - 0.345 | <b>0.335</b> | 8.27 - 8.76   | 0.340 - 0.359 | <b>0.350</b>  | 8.62 - 9.12   |
|       | 0.346 - 0.365 | <b>0.355</b> | 8.77 - 9.27   | 0.360 - 0.379 | <b>0.370</b>  | 9.13 - 9.63   |
|       | 0.366 - 0.385 | <b>0.375</b> | 9.28 - 9.78   | 0.380 - 0.399 | <b>0.390</b>  | 9.64 - 10.13  |
|       | 0.386 - 0.405 | <b>0.395</b> | 9.79 - 10.29  | 0.400 - 0.419 | <b>0.410</b>  | 10.14 - 10.64 |
|       | 0.406 - 0.425 | <b>0.415</b> | 10.30 - 10.80 | 0.420 - 0.439 | <b>0.430</b>  | 10.65 - 11.15 |
|       | 0.426 - 0.445 | <b>0.435</b> | 10.81 - 11.30 | 0.440 - 0.459 | <b>0.450</b>  | 11.16 - 11.66 |
| 142   | 0.446 - 0.465 | <b>0.455</b> | 11.31 - 11.81 | 0.460 - 0.479 | <b>0.470</b>  | 11.67 - 12.17 |
|       | 0.466 - 0.485 | <b>0.475</b> | 11.82 - 12.32 | 0.480 - 0.499 | <b>0.490</b>  | 12.18 - 12.67 |
|       | 0.486 - 0.505 | <b>0.495</b> | 12.33 - 12.83 | 0.500 - 0.519 | <b>0.510</b>  | 12.68 - 13.18 |
|       | 0.506 - 0.525 | <b>0.515</b> | 12.84 - 13.34 | 0.520 - 0.539 | <b>0.530</b>  | 13.19 - 13.69 |
|       | 0.526 - 0.545 | <b>0.535</b> | 13.35 - 13.84 | 0.540 - 0.559 | <b>0.550</b>  | 13.70 - 14.20 |
|       | 0.546 - 0.565 | <b>0.555</b> | 13.85 - 14.35 | 0.560 - 0.579 | <b>0.570</b>  | 14.21 - 14.71 |
|       | 0.566 - 0.585 | <b>0.575</b> | 14.36 - 14.86 | 0.580 - 0.599 | <b>0.590</b>  | 14.72 - 15.21 |
| 143   | 0.586 - 0.605 | <b>0.595</b> | 14.87 - 15.37 | 0.600 - 0.619 | <b>0.610</b>  | 15.22 - 15.72 |
|       | 0.606 - 0.625 | <b>0.615</b> | 15.38 - 15.88 | 0.620 - 0.639 | <b>0.630</b>  | 15.73 - 16.23 |
|       | 0.626 - 0.645 | <b>0.635</b> | 15.89 - 16.38 | 0.640 - 0.659 | <b>0.650</b>  | 16.24 - 16.74 |
|       | 0.646 - 0.665 | <b>0.655</b> | 16.39 - 16.89 | 0.660 - 0.679 | <b>0.670</b>  | 16.75 - 17.25 |
|       | 0.666 - 0.685 | <b>0.675</b> | 16.90 - 17.40 | 0.680 - 0.699 | <b>0.690</b>  | 17.26 - 17.75 |
|       | 0.686 - 0.705 | <b>0.695</b> | 17.41 - 17.91 | 0.700 - 0.719 | <b>0.710</b>  | 17.76 - 18.26 |
|       | 0.706 - 0.725 | <b>0.715</b> | 17.92 - 18.42 | 0.720 - 0.739 | <b>0.730</b>  | 18.27 - 18.77 |
| 144   | 0.726 - 0.745 | <b>0.735</b> | 18.43 - 18.92 | 0.740 - 0.759 | <b>0.750</b>  | 18.78 - 19.28 |
|       | 0.746 - 0.765 | <b>0.755</b> | 18.93 - 19.43 | 0.760 - 0.779 | <b>0.770</b>  | 19.29 - 19.79 |
|       | 0.766 - 0.785 | <b>0.775</b> | 19.44 - 19.94 | 0.780 - 0.799 | <b>0.790</b>  | 19.80 - 20.29 |
|       | 0.786 - 0.805 | <b>0.795</b> | 19.95 - 20.45 | 0.800 - 0.819 | <b>0.810</b>  | 20.30 - 20.80 |
|       | 0.806 - 0.825 | <b>0.815</b> | 20.46 - 20.96 | 0.820 - 0.839 | <b>0.830</b>  | 20.81 - 21.31 |
|       | 0.826 - 0.845 | <b>0.835</b> | 20.97 - 21.46 | 0.840 - 0.859 | <b>0.850</b>  | 21.32 - 21.82 |
|       | 0.846 - 0.865 | <b>0.855</b> | 21.47 - 21.97 | 0.860 - 0.879 | <b>0.870</b>  | 21.83 - 22.33 |
| 145   | 0.866 - 0.885 | <b>0.875</b> | 21.98 - 22.48 | 0.880 - 0.899 | <b>0.890</b>  | 22.34 - 22.83 |
|       | 0.886 - 0.905 | <b>0.895</b> | 22.49 - 22.99 | 0.900 - 0.919 | <b>0.910</b>  | 22.84 - 23.34 |
|       | 0.906 - 0.925 | <b>0.915</b> | 23.00 - 23.50 | 0.920 - 0.939 | <b>0.930</b>  | 23.35 - 23.85 |
|       | 0.926 - 0.945 | <b>0.935</b> | 23.51 - 24.00 | 0.940 - 0.959 | <b>0.950</b>  | 23.86 - 24.36 |
|       | 0.946 - 0.965 | <b>0.955</b> | 24.01 - 24.51 | 0.960 - 0.979 | <b>0.970</b>  | 24.37 - 24.87 |
|       | 0.966 - 0.985 | <b>0.975</b> | 24.52 - 25.02 | 0.980 - 0.999 | <b>0.990</b>  | 24.88 - 25.37 |
|       | 0.986 - 1.005 | <b>0.995</b> | 25.03 - 25.53 | 1.000 - 1.019 | <b>1.010</b>  | 25.38 - 25.88 |
| 146   | 1.006 - 1.025 | <b>1.015</b> | 25.54 - 26.04 | 1.020 - 1.039 | <b>1.030</b>  | 25.89 - 26.39 |
|       | 1.026 - 1.045 | <b>1.035</b> | 26.05 - 26.54 | 1.040 - 1.059 | <b>1.050</b>  | 26.40 - 26.90 |
|       | 1.046 - 1.065 | <b>1.055</b> | 26.55 - 27.05 | 1.060 - 1.079 | <b>1.070</b>  | 26.91 - 27.41 |
|       | 1.066 - 1.085 | <b>1.075</b> | 27.06 - 27.56 | 1.080 - 1.099 | <b>1.090</b>  | 27.42 - 27.91 |
|       | 1.086 - 1.105 | <b>1.095</b> | 27.57 - 28.07 | 1.100 - 1.119 | <b>1.110</b>  | 27.92 - 28.42 |
|       | 1.106 - 1.125 | <b>1.115</b> | 28.08 - 28.58 | 1.120 - 1.139 | <b>1.130</b>  | 28.43 - 28.93 |
|       | 1.126 - 1.145 | <b>1.135</b> | 28.59 - 29.08 | 1.140 - 1.159 | <b>1.150</b>  | 28.94 - 29.44 |
| 147   | 1.146 - 1.165 | <b>1.155</b> | 29.09 - 29.59 | 1.160 - 1.179 | <b>1.170</b>  | 29.45 - 29.95 |
|       | 1.166 - 1.185 | <b>1.175</b> | 29.60 - 30.10 | 1.180 - 1.199 | <b>1.190</b>  | 29.96 - 30.45 |
|       | 1.186 - 1.205 | <b>1.195</b> | 30.11 - 30.61 | 1.200 - 1.219 | <b>1.210</b>  | 30.46 - 30.96 |
|       | 1.206 - 1.225 | <b>1.215</b> | 30.62 - 31.12 | 1.220 - 1.239 | <b>1.230</b>  | 30.97 - 31.47 |
|       | 1.226 - 1.245 | <b>1.235</b> | 31.13 - 31.62 | 1.240 - 1.259 | <b>1.250</b>  | 31.48 - 31.98 |
|       | 1.246 - 1.265 | <b>1.255</b> | 31.63 - 32.13 | 1.260 - 1.279 | <b>1.270</b>  | 31.99 - 32.49 |
|       | 1.266 - 1.285 | <b>1.275</b> | 32.14 - 32.64 | 1.280 - 1.299 | <b>1.290</b>  | 32.50 - 32.99 |
| 148   | 1.286 - 1.305 | <b>1.295</b> | 32.65 - 33.15 | 1.300 - 1.319 | <b>1.310</b>  | 33.00 - 33.50 |
|       | 1.306 - 1.325 | <b>1.315</b> | 33.16 - 33.66 | 1.320 - 1.339 | <b>1.330</b>  | 33.51 - 34.01 |
|       | 1.326 - 1.345 | <b>1.335</b> | 33.67 - 34.16 | 1.340 - 1.359 | <b>1.350</b>  | 34.02 - 34.52 |
|       | 1.346 - 1.365 | <b>1.355</b> | 34.17 - 34.67 | 1.360 - 1.379 | <b>1.370</b>  | 34.53 - 35.03 |
|       | 1.366 - 1.385 | <b>1.375</b> | 34.68 - 35.18 | 1.380 - 1.399 | <b>1.390</b>  | 35.04 - 35.53 |
|       | 1.386 - 1.405 | <b>1.395</b> | 35.19 - 35.69 | 1.400 - 1.419 | <b>1.410</b>  | 35.54 - 36.04 |
|       | 1.406 - 1.425 | <b>1.415</b> | 35.70 - 36.20 | 1.420 - 1.439 | <b>1.430</b>  | 36.05 - 36.55 |
| 149   | 1.426 - 1.445 | <b>1.435</b> | 36.21 - 36.70 | 1.440 - 1.459 | <b>1.450</b>  | 36.56 - 37.06 |
|       | 1.446 - 1.465 | <b>1.455</b> | 36.71 - 37.21 | 1.460 - 1.479 | <b>1.470</b>  | 37.07 - 37.57 |
|       | 1.466 - 1.485 | <b>1.475</b> | 37.22 - 37.72 | 1.480 - 1.499 | <b>1.490</b>  | 37.58 - 38.07 |
|       | 1.486 - 1.505 | <b>1.495</b> | 37.73 - 38.23 | 1.500 - 1.519 | <b>1.510</b>  | 38.08 - 38.58 |
|       | 1.506 - 1.525 | <b>1.515</b> | 38.24 - 38.74 | 1.520 - 1.539 | <b>1.530</b>  | 38.59 - 39.09 |
|       |               |              |               | 1.540 - 1.559 | <b>1.550</b>  | 39.10 - 39.60 |
|       |               |              |               | 1.560 - 1.579 | <b>1.570</b>  | 39.61 - 40.11 |
|       |               |              | 1.580 - 1.599 | <b>1.590</b>  | 40.12 - 40.61 |               |
|       |               |              | 1.600 - 1.619 | <b>1.610</b>  | 40.62 - 41.12 |               |
|       |               |              | 1.620 - 1.639 | <b>1.630</b>  | 41.13 - 41.63 |               |
|       |               |              | 1.640 - 1.659 | <b>1.650</b>  | 41.64 - 42.14 |               |

| Model | Tube ID Range |              |               | Tube OD Range |              |               |
|-------|---------------|--------------|---------------|---------------|--------------|---------------|
|       | Inches        | Seal         | mm            | Inches        | Collet       | mm            |
| 147   | 1.526 - 1.545 | <b>1.535</b> | 38.76 - 39.24 | 1.660 - 1.679 | <b>1.670</b> | 42.16 - 42.65 |
|       | 1.566 - 1.585 | <b>1.575</b> | 39.78 - 40.26 | 1.700 - 1.719 | <b>1.710</b> | 43.18 - 43.66 |
|       | 1.606 - 1.625 | <b>1.615</b> | 40.79 - 41.28 | 1.720 - 1.739 | <b>1.730</b> | 43.69 - 44.17 |
|       | 1.626 - 1.645 | <b>1.635</b> | 41.30 - 41.78 | 1.740 - 1.759 | <b>1.750</b> | 44.20 - 44.68 |
|       | 1.646 - 1.665 | <b>1.655</b> | 41.81 - 42.29 | 1.760 - 1.779 | <b>1.770</b> | 44.70 - 45.19 |
|       | 1.666 - 1.685 | <b>1.675</b> | 42.32 - 42.80 | 1.780 - 1.799 | <b>1.790</b> | 45.21 - 45.69 |
|       | 1.766 - 1.785 | <b>1.775</b> | 44.86 - 45.34 | 1.800 - 1.819 | <b>1.810</b> | 45.72 - 46.20 |
|       | 1.926 - 1.945 | <b>1.935</b> | 48.92 - 49.40 | 1.820 - 1.839 | <b>1.830</b> | 46.23 - 46.71 |
|       | 1.946 - 1.965 | <b>1.955</b> | 49.43 - 49.91 | 1.860 - 1.879 | <b>1.870</b> | 47.24 - 47.73 |
|       | 1.966 - 1.985 | <b>1.975</b> | 49.94 - 50.42 | 1.880 - 1.899 | <b>1.890</b> | 47.75 - 48.23 |
|       | 1.986 - 2.005 | <b>1.995</b> | 50.44 - 50.93 | 1.900 - 1.919 | <b>1.910</b> | 48.26 - 48.74 |
|       | 2.006 - 2.025 | <b>2.015</b> | 50.95 - 51.44 | 1.920 - 1.939 | <b>1.930</b> | 48.77 - 49.25 |
|       | 2.046 - 2.065 | <b>2.055</b> | 51.97 - 52.45 | 2.100 - 2.119 | <b>2.110</b> | 53.34 - 53.82 |
|       | 2.066 - 2.085 | <b>2.075</b> | 52.48 - 52.96 | 2.120 - 2.139 | <b>2.130</b> | 53.85 - 54.33 |
| 148   | 2.106 - 2.125 | <b>2.115</b> | 53.49 - 53.98 | 2.140 - 2.159 | <b>2.150</b> | 54.36 - 54.84 |
|       | 2.126 - 2.145 | <b>2.135</b> | 54.00 - 54.48 | 2.240 - 2.259 | <b>2.250</b> | 56.90 - 57.38 |
|       | 2.146 - 2.165 | <b>2.155</b> | 54.51 - 54.99 | 2.260 - 2.279 | <b>2.270</b> | 57.40 - 57.89 |
|       | 2.366 - 2.385 | <b>2.375</b> | 60.10 - 60.58 | 2.280 - 2.299 | <b>2.290</b> | 57.91 - 58.39 |
|       | 2.426 - 2.445 | <b>2.435</b> | 61.62 - 62.10 | 2.300 - 2.319 | <b>2.310</b> | 58.42 - 58.90 |
|       | 2.446 - 2.465 | <b>2.455</b> | 62.13 - 62.61 | 2.320 - 2.339 | <b>2.330</b> | 58.93 - 59.41 |
|       | 2.466 - 2.485 | <b>2.475</b> | 62.64 - 63.12 | 2.340 - 2.359 | <b>2.350</b> | 59.44 - 59.92 |
|       | 2.486 - 2.505 | <b>2.495</b> | 63.14 - 63.63 | 2.360 - 2.379 | <b>2.370</b> | 59.94 - 60.43 |
|       | 2.506 - 2.525 | <b>2.515</b> | 63.65 - 64.14 | 2.380 - 2.399 | <b>2.390</b> | 60.45 - 60.93 |
|       | 2.526 - 2.545 | <b>2.535</b> | 64.16 - 64.64 | 2.480 - 2.499 | <b>2.490</b> | 62.99 - 63.47 |
|       | 2.566 - 2.585 | <b>2.575</b> | 65.18 - 65.66 | 2.500 - 2.519 | <b>2.510</b> | 63.50 - 63.98 |
|       | 2.586 - 2.605 | <b>2.595</b> | 65.68 - 66.17 | 2.560 - 2.579 | <b>2.570</b> | 65.02 - 65.51 |
|       | 2.606 - 2.625 | <b>2.615</b> | 66.19 - 66.68 | 2.620 - 2.639 | <b>2.630</b> | 66.55 - 67.03 |
|       | 2.626 - 2.645 | <b>2.635</b> | 66.70 - 67.18 | 2.740 - 2.759 | <b>2.750</b> | 69.60 - 70.08 |
| 149   | 2.646 - 2.665 | <b>2.655</b> | 67.21 - 67.69 | 2.760 - 2.779 | <b>2.770</b> | 70.10 - 70.59 |
|       | 2.906 - 2.925 | <b>2.915</b> | 73.81 - 74.30 | 2.780 - 2.799 | <b>2.790</b> | 70.61 - 71.09 |
|       | 2.926 - 2.945 | <b>2.935</b> | 74.32 - 74.80 | 2.800 - 2.819 | <b>2.810</b> | 71.12 - 71.60 |
|       | 2.946 - 2.965 | <b>2.955</b> | 74.83 - 75.31 | 2.820 - 2.839 | <b>2.830</b> | 71.63 - 72.11 |
|       | 2.966 - 2.985 | <b>2.975</b> | 75.34 - 75.82 | 2.840 - 2.859 | <b>2.850</b> | 72.14 - 72.62 |
|       | 3.106 - 3.125 | <b>3.115</b> | 78.89 - 79.38 | 2.860 - 2.879 | <b>2.870</b> | 72.64 - 73.13 |
|       | 3.126 - 3.145 | <b>3.135</b> | 79.40 - 79.88 | 3.120 - 3.139 | <b>3.130</b> | 79.25 - 79.73 |
|       | 3.146 - 3.165 | <b>3.155</b> | 79.91 - 80.39 | 3.300 - 3.319 | <b>3.310</b> | 83.82 - 84.30 |

\* Larger and Custom sizes available